

REMARKS

The foregoing amendments and the following remarks are in response to the Final Office Action dated May 4, 2007. This amendment is timely filed.

At the time of the Office Action, claims 1-16 were pending. In the Office Action, claims 1-16 were rejected under 35 U.S.C. §103(a). The rejections are discussed in more detail below. Support for amendments made herein may be found throughout the specification and as specifically cited in the following discussion.

I. Rejections under 35 U.S.C. §103

Claims 1-6, 14 and 15 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,709,218 to Halloran (hereafter "Halloran") in view of U.S. Patent No. 6,270,499 to Leu (hereafter "Leu"). Claims 7-13 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Halloran in view of Leu and in further view of U.S. Patent No. 6,692,498 to Niiranen (hereafter "Niiranen").

Applicant notes that the Examiner disregarded the previously-filed arguments that the nail of the present application is cannulated, whereas all the nails of the cited prior art references are solid. Claim 1 recites "at least one cannulated humeral nail" Applicant respectfully submits that this difference is highly relevant, because with cannulated nails it is difficult to allow for both easy insertion of a screw (because if the opposite holes on each side of the nail are small, the screw must be aligned very carefully to pass through both holes properly) and yet to prevent movement of that screw in use. None of the cited references teach or suggest use of a cannulated nail, as recited in claim 1. In particular, Halloran teaches a nail having elongated transverse slots but which is solid between the slots (which suffers from similar drawbacks to those discussed in the present application, namely that the screws tend to lose stability over time in such elongated slots because the porous bone leaves the screw free to move), Leu teaches a solid nail having transverse bores, and Niiranen does not teach providing a nail that is insertable in a bone shaft at all.

In addition, Applicant notes that the Examiner introduced a new objection which refers to the expression "internal partially thread hole". In the Office Action, the Examiner states he "is

interpreting the threaded holes of Leu to be partially threaded because the pitch of the threads could be increased to add a higher thread count in the hole." Applicant respectfully believes that such an interpretation stretches the commonly understood meaning of "partially threaded" beyond all reasonable interpretations, however in the interests of facilitating prosecution, applicant has amended claim 1 to define that the partially threaded portion extends through a portion of a perimeter of the transversal hole without extending fully around the perimeter of the transversal hole. This amendment is believed to fully differentiate the claim from Leu. This feature is clearly shown in the drawings in figures 3-5. Page 6, lines 10 to 14 of the application as filed points to figures 4 and 5, and recites:

In this specific embodiment at least the proximal transversal hole 6 of the humeral nail 10 includes an internal partially threaded portion 28, clearly shown in Figures 4 and 5. This portion 28 may be considered a portion of nut screw, but even a knurl portion could meet the purposes of the invention.

Even if the Examiner's interpretation of "partially threaded" is correct, applicant does not believe the Examiner's conclusion is proper, because the Examiner does not identify a location in Leu that would teach or suggest increasing the pitch of the threads.

None of the Examiner's cited references (Leu, Halloran or Niiranen) disclose the element of claim 1 of a hole with a thread which does not run over the entire perimeter of the hole. It should be noted, as discussed on pages 3 and 4 of the present application, that a partially threaded portion does not interfere with the screw during normal insertion, allowing for easy insertion of the screw, even in different directions. However, in case of an undesired movement or displacement of the screw after its final fastening or in use, the internal threaded portion prevents undesired movement of the screw, allowing the screw to remain stable in the nail.

In view of the foregoing remarks and amendments, Applicant respectfully requests the 35 U.S.C. §103 rejections to be withdrawn.

II. Conclusion

Having fully responded to all matters raised in the Office Action, Applicant submits that all claims are in condition for allowance, an indication of which is respectfully solicited. If there are

Amendment

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any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call the undersigned at the telephone number shown below.

Please charge any shortage in fees due in connection with this application to Deposit Account 500951 and please credit any excess fees to such deposit account.

Date: 7/5/07

Respectfully submitted,



Mark D. Passler

Registration No. 40,764

Sarah E. Smith

Registration No. 50,488

AKERMAN SENTERFITT

Post Office Box 3188

West Palm Beach, FL 33402-3188

Telephone: (561) 653-5000